GRANDE PRAIRIE REGIONAL COLLEGE
BUSINESS ADMINISTRATION
COURSE OUTLINE

1983-84

BA 205 - ADVANCED BUSINESS COMPUTING

TEXTS:

Apple II Users Guide; Lon Poole et al;
   (Berkeley, California: Osborne/McGraw-Hill, 1983)
   2nd Edition.

Crash Course in Micro-Computers; Louis E. Frenzel,
   Jr., (Indianapolis, Indiana: Howard W. Sams and
   Co., Inc., 1982) 1st Edition.

COURSE
DESCRIPTION:
This course is intended to acquaint the student with
the application of micro-computers to the solving of
business oriented problems. Participants will be
expected to become familiar with the BASIC computer
language by writing and testing programs written for
either the Apple II plus/IIe or TRS-80 Model III
personal computers. Instruction will include a dis-
cussion of hardware, machine specific instruction
code, graphics, random/sequential file handling and
word processing.

COURSE
OBJECTIVES:
The maintenance, stability, and growth of today's
busines organization depends to a large extent upon
the quality of it's information. With the develop-
ment of the silicon chip and the growing potential
of the micro processor, the quality, frequency, and
speed of data, vital to the decision making process
has been tremendously enhanced. To be sure, this
latest (and probably most useful) tool available to
managers has projected them into the role of full
time decision makers by freeing them from the drud-
gery of routine processing tasks.

The second "Industrial Revolution" is now an integral
part of every field - business and scientific - and
affects the lives of millions. It is with this
thought in mind that this course is developed.

The course is divided into two sections. The initial discussions will focus upon the architecture of the micro computer system. The second part will be dedicated to the use of the Apple II plus/e's and the TRS-80's. Students will be introduced to the specialized use of hardware, and will also be expected to write extensive programs using the BASIC language.

GRADING:

Student Assignments

Students will be required to submit four assignments for the term. Grading on these submissions will be as follows:

9 - Program output is accurate as per assignment. All visual displays are neat, well centered on the monitor and/or hard copy printout. Any written Documentation required must be neat, accurate, comprehensible, and visually attractive to view. If a flowchart is required, it must be detailed and accurate.

8 - Program output is accurate as per assignment, however, there is a single flaw in the submission (eg. visual display not well centered on the monitor or hard copy, columns are not perfectly lined up, there is a minor flaw in written documentation or flowchart).

7 - Program output is accurate. There are two to four minor faults in the total presentation. Please note that program flaws must be minor.

6 - Program is accurate in the problem solution, however, there are five or more undesirable aspects of the total presentation.

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5 - Problem solution is incorrect. Presentation on monitor or on hardcopy is flawless as is any written documentation or flowcharts that may be required.

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4 – Problem solution is incorrect. Presentation on the monitor or hardcopy has no more than two minor flaws. All other aspects of the assignment such as the written documentation and/or flowcharts are excellent.

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3 – There is no program output, however, the written documentation and/or flowchart are excellent.

2 – There is no program output and the written documentation and/or flowchart have one or more flaws.

1 – The student has not submitted the assignment.

PLEASE NOTE: LATE SUBMISSIONS WILL BE DOCKED 1 STANINE FOR EACH DAY LATE

Student Evaluation

The student will be responsible for all readings as well as ensuring all assignments are SUBMITTED ON TIME.

Final Grade will be compiled in the following manner:

Mid term	15 marks
Final Exam	25 marks
Four Assignments	60 marks
Total	100 marks

NOTE: Students often underestimate the time it takes to key in and debug their programs. Invariably, assignments are left to two or three days before they are due. This results in a scramble for computer time often necessitating long frustrating hours being spent in waiting to get on a particular machine. With the very limited equipment we have and with approximately 100 students using it, computer time will be scarce so . . . BEGIN IMMEDIATELY UPON RECEIVING YOUR ASSIGNMENT . . . DON'T PROCRASTINATE . . .

BA 205 - ADVANCED BUSINESS COMPUTING

<u>STUDENTS MAY SIGN UP FOR THREE (3) HOUR BLOCKS
OF TIME ON A COMPUTER. WHEN THIS TIME IS
UP THEY MUST NOT RESERVE ANOTHER MACHINE UN-
TIL FOUR (4) HOURS HAS ELAPSED</u>

**COURSE
CONTENT:**

<u>LECTURE OUTLINE</u>

PART 1 - <u>SYSTEM ARCHITECTURE</u>

This opening series of lectures will focus upon the
architecture of the micro computer system. The
major registers of the 8080, 8085, and Z80 micro
processors are discussed Input/Output ports are
explained as are the IEEE-488 and EIA RS232 Inter-
face ports. Students will be introduced to machine
language programming to aid them in reading and
understanding this form of coding.

PART II - <u>THE HARDWARE</u>

In this section the hardware of the APPLE II PLUS/E
is introduced and discussion will include the 6502
processor the concepts of RAM, ROM, RGB Color Mon-
itor, Diskettes, Tracks, Sectors, Granules, Soft
Sector, Hard Sector, Disk Drives, Kilo Byte,
Printers, DOS, Directory, Catalog, Backup, Copy,
Initialize, BASIC Interpreter, ASCII Code, Computer
Arithmetic and the Program Line Editor (PLE).

PART III - <u>THE BASIC LANGUAGE</u>

In this series the student will be re-introduced to
the BASIC language. Numeric and String variables
are discussed; how to access the printers, and key
words like INPUT, PRINT, IF-THEN, STOP, GOTO, END,
LET, FOR-NEXT, TAB, VTAB, HTAB, SET, RESET,
INKEY$, GET, READ, DATA, RESTORE, RND, ON-GOTO,
REM, GOSUB, RETURN, INT, ABS, SOR, DEF FN, and the
EDITORS will be elaborated upon.

PART IV - THE LANGUAGE (AVANCED)

In this section discussion includes Arrays, Sub-
scripted Variables, and the DIM Statement. Print
Using, String Relations, String Concatenation,
String Functions, ASC( ), CHR$( ), LEFT$( ),
RIGHT$( ), MID$( ), LEN$( ), STR$( ), VAL$( ),
INSTR( ).

PART V - FILES AND GRAPHICS

In this important section students are introduced to
Random Access and Sequential files. Students are
also introduced to the use of the graphics tablet,
Hi and Lo Resolution, and the use of sound. Instruc-
tional code such as APPEND, OPEN, CLOSE. POKE. PEEK,
ONERR. EXEC, DELETE, BLOAD, BSAVE, MON. NOMON. LOCK,
UNLOCK, GR, HGR, HLIN, VLIN, COLOR, TEXT. PLOT and
the like are considered.